

## Complete Summary

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### TITLE

Acute myocardial infarction: percent of patients with elevated low-density lipoprotein cholesterol (LDL-c greater than or equal to 130 mg/dL or narrative equivalent) who are prescribed a lipid-lowering medication at hospital discharge.

### SOURCE(S)

Specifications manual for national hospital quality measures, version 1.04. Centers for Medicare and Medicaid Services (CMS), Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2005 Aug. various p.

### Measure Domain

#### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

#### SECONDARY MEASURE DOMAIN

Does not apply to this measure

### Brief Abstract

#### DESCRIPTION

This measure\* is used to assess the percent of acute myocardial infarction (AMI) patients with elevated low-density lipoprotein cholesterol (LDL-c greater than or equal to 130 mg/dL or narrative equivalent) who are prescribed a lipid-lowering medication at hospital discharge.

\*This is a CMS only measure.

#### RATIONALE

The reduction of low-density lipoprotein cholesterol (LDL-c) reduces mortality and morbidity in patients with coronary artery disease (CAD). Placebo-controlled trials in patients with CAD and hyperlipidemia demonstrate a 30 to 40% relative risk reduction in cardiovascular endpoints with lipid-lowering therapy. Recent

guidelines have recommended lipid lowering, particularly LDL-c reduction, in patients with CAD and hyperlipidemia. Despite this, many older patients hospitalized with AMI and elevated LDL-c levels are not receiving lipid-lowering medication at hospital discharge.

This test measure will help determine the feasibility of reliably ascertaining LDL-c treatment data from the medical record and the acceptability of this quality measure to practicing clinicians.

#### PRIMARY CLINICAL COMPONENT

Acute myocardial infarction (AMI); low-density lipoprotein cholesterol (LDL-c); lipid-lowering medication

#### DENOMINATOR DESCRIPTION

Acute myocardial infarction (AMI) patients with elevated low-density lipoprotein cholesterol (LDL-c greater than or equal to 130 mg/dL or narrative equivalent) (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

#### NUMERATOR DESCRIPTION

Acute myocardial infarction (AMI) patients who are prescribed lipid-lowering medication at hospital discharge

### Evidence Supporting the Measure

#### EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Overall poor quality for the performance measured

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Jencks SF, Cuerdon T, Burwen DR, Fleming B, Houck PM, Kussmaul AE, Nilasena DS, Ordin DL, Arday DR. Quality of medical care delivered to Medicare beneficiaries: A profile at state and national levels. JAMA2000 Oct 4;284(13):1670-6. [PubMed](#)

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Collaborative inter-organizational quality improvement  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Hospitals

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

Age greater than or equal to 18 years

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

Each year 900,000 people in the United States (U.S.) are diagnosed with acute myocardial infarction (AMI); of these, approximately 225,000 cases result in death and, it is estimated that an additional 125,000 patients die before obtaining medical care.

### EVIDENCE FOR INCIDENCE/PREVALENCE

American College of Cardiology, American Heart Association Task Force on Practice Guidelines, Committee on Management of Acute Myocardial Infarction. Ryan TJ, Antman EM, Brooks NH, Califf RM, Hillis LD, Hiratzka LF, Rapaport E, Riegel B, Russell RO, Smith EE III, Weaver WD. ACC/AHA guidelines for the management of patients with acute myocardial infarction: 1999 Update. Bethesda (MD): American College of Cardiology (ACC), American Heart Association (AHA); 1999. Various p.

## ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

## BURDEN OF ILLNESS

Cardiovascular disease, including acute myocardial infarction (AMI), is the leading cause of death in the United States (U.S.).

## EVIDENCE FOR BURDEN OF ILLNESS

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

## UTILIZATION

Cardiovascular disease, including acute myocardial infarction (AMI), is the primary disease category for hospital patient discharges.

## EVIDENCE FOR UTILIZATION

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

## COSTS

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Getting Better

## IOM DOMAIN

Effectiveness

## CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

Discharges, 18 years and older, with a principal diagnosis of acute myocardial infarction (AMI) with elevated low-density lipoprotein cholesterol (LDL-c greater than or equal to 130 mg/dL or narrative equivalent)

## DENOMINATOR SAMPLING FRAME

Patients associated with provider

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

Discharges with an International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for acute myocardial infarction (AMI) as defined in Appendix A of the original measure documentation and patients with one or more of the following documented in the medical record:

- Low-density lipoprotein cholesterol (LDL-c) greater than or equal to 130 mg/dL (or narrative equivalent) on test performed during hospital stay; or
- If no in-hospital test result, LDL-c greater than or equal to 130 mg/dL (or narrative equivalent) on test performed prior to arrival

### Exclusions

- Patients less than 18 years of age
- Patients transferred to another acute care hospital or federal hospital
- Patients who expired
- Patients who left against medical advice
- Patients discharged to hospice
- Patients who did not receive lipid-lowering medication and had a reason documented by a physician, nurse practitioner, or physician assistant for not prescribing lipid-lowering medication at discharge

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Institutionalization

## DENOMINATOR TIME WINDOW

Time window is a single point in time

## NUMERATOR INCLUSIONS/EXCLUSIONS

#### Inclusions

Acute myocardial infarction (AMI) patients who are prescribed lipid-lowering medication at hospital discharge

#### Exclusions

None

#### NUMERATOR TIME WINDOW

Encounter or point in time

#### DATA SOURCE

Administrative and medical records data

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

AMI-T2: lipid lowering therapy at discharge.

### MEASURE COLLECTION

[National Hospital Quality Measures](#)

### MEASURE SET NAME

[Acute Myocardial Infarction](#)

### SUBMITTER

Centers for Medicare & Medicaid Services  
Joint Commission on Accreditation of Healthcare Organizations

### DEVELOPER

Centers for Medicare and Medicaid Services/Joint Commission on Accreditation of  
Healthcare Organizations

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2000 Aug

### REVISION DATE

2005 Aug

### MEASURE STATUS

Please note: This measure has been updated. The National Quality Measures  
Clearinghouse is working to update this summary.

### SOURCE(S)

Specifications manual for national hospital quality measures, version 1.04.  
Centers for Medicare and Medicaid Services (CMS), Joint Commission on  
Accreditation of Healthcare Organizations (JCAHO); 2005 Aug. various p.

### MEASURE AVAILABILITY

The individual measure, "AMI-T2: Lipid Lowering Therapy at Discharge," is published in "Specifications Manual for National Hospital Quality Measures." This document is available from the [Joint Commission on Accreditation of Healthcare Organizations \(JCAHO\) Web site](#). Information is also available from the [Centers for Medicare & Medicaid Services \(CMS\) Web site](#). Check the JCAHO Web site and CMS Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

## COMPANION DOCUMENTS

The following are available:

- A software application designed for the collection and analysis of quality improvement data, the CMS Abstraction and Reporting Tool (CART), is available from the [CMS CART Web site](#). Supporting documentation is also available. For more information, e-mail CMS PROINQUIRIES at [proinquiries@cms.hhs.gov](mailto:proinquiries@cms.hhs.gov).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). A comprehensive review of development and testing for national implementation of hospital core measures. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 40 p. This document is available from the [JCAHO Web site](#).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Attributes of core performance measures and associated evaluation criteria. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 5 p. This document is available from the [JCAHO Web site](#).

## NQMC STATUS

This NQMC summary was completed by ECRI on October 6, 2005. The information was verified by the measure developer on December 12, 2005.

## COPYRIGHT STATEMENT

The Specifications Manual for National Hospital Quality Measures [Version 1.04, August, 2005] is the collaborative work of the Centers for Medicare & Medicaid Services and the Joint Commission on Accreditation of Healthcare Organizations. The Specifications Manual is periodically updated by the Centers for Medicare & Medicaid Services and the Joint Commission on Accreditation of Healthcare Organizations. Users of the Specifications Manual for National Hospital Quality Measures should periodically verify that the most up-to-date version is being utilized.

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